

Chapter 23

Dynamic Electronic Textbooks: A New Learning Experience

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ABSTRACT

“The digital age has spawned an e-publishing revolution and cultivated the growing prevalence of e-books” (Carreiro, 2010, p. 232). Breakthroughs in technology allow e-books to be downloaded, customized, printed, or sent instantly anywhere. A rapidly evolving culture of information-seeking students have embraced these new technologies as they increasingly expect the immediacy and familiarity of digital content. The academic publishing industry must respond to this growing demand. “How individuals access digital content will depend largely on how academic publishers adapt to the new digital environment” (Janke, 2011, p. 153). This chapter examines how contemporary education theory could be used to support certain e-textbook design features, enhancing the student’s learning and fostering educational growth.

INTRODUCTION

New technologies and recent advances have brought revolutionary changes in conventional print-based industry of newspapers, magazines, and books. This industry had been safeguarded against a major change that would have been caused a change in their lucrative business model and a disproportionate market power. More recently, electronic reader devices have flourished in the leisure-reading market. These devices can be used with read-only format electronic books. However, this shift has been a much slower process in the education market. With increasingly aggressive

demands for digital content, electronic textbooks are expected to play a major role in bringing change in one of the most conventional print-based industry.

According to Carreiro (2010), the modern digital age has brought an e-publishing revolution. We see e-books use becoming common and technological innovations (such as e-book readers) support this trend by providing users the ability to download, customize, print, or send e-books instantly anywhere anytime. Increasing number of students seeking information look to find digital content that is familiar and immediately available. These students are the early adopters of tech-

DOI: 10.4018/978-1-4666-9634-1.ch023

nologies providing digital content and academic publishing industry must respond to such new demands. According to Janke (2011, p. 153), the way individuals access digital content will largely depend on the way academic publishers adapt to the new digital environment.

E-textbooks have many advantages over printed textbooks. They are environmentally friendlier; appeal to a generation accustomed to using electronic devices; can be revised and delivered quicker; and have a greater portability than printed texts. In addition, they are generally cheaper, require less storage space, and do not result in obsolete inventories. A large online study by Gunter (2005) in the UK found that the main perceived benefit of e-books are that they can be obtained more conveniently than going to a bookstore and that they are often cheaper than printed versions. Further it became evident that early e-book users regard electronic reading as something to use primarily for reference rather than for more extended leisure reading. Nonetheless, besides dipping in and out of reference works, e-textbooks show advantages by being able to search and annotate. Jamali et al (2009) categorized the main advantages of using e-textbooks into the following major categories: Online access, ability to search, cost, and portability. The main attraction of e-textbooks is that they are more accessible than print books. They are available 24/7 wherever and whatever time they are needed. This feature accounted for 55 percent of the advantages stated in the study. The ability to search, accounting for 15.4% of the advantages, allowed the user to find relevant content quickly using key word searches or phrases. The third category of cost accounted for 10.8% of the advantages. The study found that some e-textbooks were free or less expensive than their printed counterparts. Finally, portability was mentioned by 5.3% of the respondents as an advantage. They were lighter than their printed counterparts, and a number of books could be carried on a single computer, memory card or iPod. In addition to these major categories, a number of attributes

were cited as an advantage by more than 0.5% of the respondents. These included: Eco-Friendly, Easier to Store, Multiple Users, the Ability to Copy and Paste text, and for some Easier to Read (Daniel & Woody, 2013).

Many US states are supporting open textbook creation. The State of Washington with a matching grant from Bill and Melissa Gates has funded the Open Course Library. The goals of this initiative are to reduce student costs, and to create engaging, interactive learning materials that will improve course completion rates. Florida has also supported the Orange Grove Texts Plus Project that seeks to provide low-cost, high quality alternatives to traditional textbooks. Digital textbooks are also easier to integrate with digital products than physical ones and, therefore additional learning opportunities become available such as links to explanatory material, iPod content, and interactive learning simulations. The current e-book market spans a wide variety of titles intended for leisure, professional and other purposes. It is important to note that the focus of this paper is on e-textbooks for use in colleges and universities. In the broadest sense, e-textbooks include any textbook or similarly structured text made available in electronic form.

The current visual presentation of the electronic textbook is a somewhat enhanced version of a PDF version of a printed book. In its current form, electronic textbook seems practical in terms of storage and portability. However, they (e-textbooks) do very little to improve the overall learning experience of the student. Improved learning cannot be expected without progress and changes in available software packages and formats. Unfortunately, most educators grew up in a time before computers were commonly used. They have never experienced the use of technology in a classroom. Hence it will require dedication, a motivated effort to understand the potential benefits and limitations and willingness to change and adapt teaching style and curriculum. The way we think about teaching today has to change and

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